



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-0787; Project Identifier MCAI-2021-00252-T; Amendment 39-22048; AD 2022-10-10]

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc., Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Bombardier, Inc., Model CL-600-1A11 (600), CL-600-2A12 (601), and CL-600-2B16 (601-3A, 601-3R, and 604 Variants) airplanes. This AD was prompted by a report of a wing stall (wing drop/un-commanded roll) during a landing flare. This AD requires revising the existing airplane flight manual (AFM) to incorporate a limitation and procedure for the wing anti-ice (WAI) system in order to mitigate the risk of ice accumulation on the wing leading edges. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact Bombardier Business Aircraft Customer Response Center, 400 Côte-Vertu Road West, Dorval,

Québec H4S 1Y9, Canada; telephone 514-855-2999; email ac.yul@aero.bombardier.com; Internet <https://www.bombardier.com>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0787.

Examining the AD Docket

You may examine the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0787; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Chirayu Gupta, Aerospace Engineer, Mechanical Systems and Administrative Services Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; email 9-avs-nyaco-cos@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued TCCA AD CF-2021-06, dated February 26, 2021 (TCCA AD CF-2021-06) (also referred to after this as the Mandatory Continuing Airworthiness Information, or the MCAI), to correct an unsafe condition for certain Bombardier, Inc., Model CL-600-1A11 (600), CL-600-2A12 (601), and CL-600-2B16 (601-3A, 601-3R,

and 604 Variants) airplanes. You may examine the MCAI in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0787.

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Bombardier, Inc., Model CL-600-1A11 (600), CL-600-2A12 (601), and CL-600-2B16 (601-3A, 601-3R, and 604 Variants) airplanes. The NPRM published in the *Federal Register* on September 15, 2021 (86 FR 51279). The NPRM was prompted by a report of a wing stall (wing drop/un-commanded roll) during a landing flare. The NPRM proposed to require revising the existing AFM to incorporate a limitation and procedure for the WAI system in order to mitigate the risk of ice accumulation on the wing leading edges. The FAA is issuing this AD to address ice accumulation on the wing leading edges, which could result in a wing stall during landing and consequent reduced controllability of the airplane. See the MCAI for additional background information.

Comments

The FAA gave the public the opportunity to participate in developing this final rule. The FAA received no comments on the NPRM or on the determination of the cost to the public.

Conclusion

The FAA reviewed the relevant data and determined that air safety and the public interest require adopting this final rule as proposed, except for minor editorial changes.

The FAA has determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for addressing the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

Related Service Information under 1 CFR Part 51

Bombardier has issued the following service information, which specifies a revised AFM limitation and procedure for the WAI system in order to mitigate the risk of ice accumulation on the wing leading edge. These documents are distinct since they apply to different airplane configurations.

- Sub-sub section (2), Wing Anti-ice System, of sub-section I., Operation in Icing Conditions, of Chapter 3., OPERATING LIMITATIONS, of the LIMITATIONS section of the Canadair Challenger AFM, Product Publication No. 600, Revision A114, dated April 16, 2020.

- Sub-section C., Icing Conditions During Flight, of Chapter 3., SYSTEMS OPERATIONS – ANTI-ICE, of the Canadair Challenger AFM, Product Publication No. 600, Revision A114, dated April 16, 2020.

- Sub-section I., Before Landing, of Chapter 42., CONSOLIDATED CHECK LIST, of the NORMAL PROCEDURES section, of the Canadair Challenger AFM, Product Publication No. 600, Revision A114, dated April 16, 2020.

- Sub-sub section (2), Wing Anti-ice System, of sub-section I., Operation in Icing Conditions, of Chapter 4., OPERATING LIMITATIONS, of the LIMITATIONS section, of the Canadair Challenger AFM, Product Support Publication (PSP) No. 600-1, Revision 106, dated April 16, 2020.

- Sub-section C., Icing Conditions During Flight, of Chapter 4., SYSTEMS OPERATIONS – ANTI-ICE, of the Canadair Challenger AFM, Product Support Publication (PSP) No. 600-1, Revision 106, dated April 16, 2020.

- Sub-section I., Before Landing, of Chapter 23., CONSOLIDATED CHECK LIST, of the NORMAL PROCEDURES section, of the Canadair Challenger AFM, Product Support Publication (PSP) No. 600-1, Revision 106, dated April 16, 2020.

- Sub-sub section (2), Wing Anti-ice System, of sub-section I., Operation in Icing Conditions, of Chapter 3., OPERATING LIMITATIONS, of the LIMITATIONS section, of the Canadair Challenger AFM, PSP No. 601-1A, Revision 123, dated April 16, 2020.

- Sub-section E., Icing Conditions During Flight, of Chapter 4., SYSTEMS OPERATIONS – ANTI-ICE, of the NORMAL PROCEDURES section, of the Canadair Challenger AFM, PSP No. 601-1A, Revision 123, dated April 16, 2020.

- Sub-sub section (2), Wing Anti-ice System, of sub-section I., Operation in Icing Conditions, of Chapter 3., OPERATING LIMITATIONS, of the LIMITATIONS section, of the Bombardier Canadair Challenger AFM, PSP No. 601-1A-1, Revision 82, dated April 16, 2020.

- Sub-section E., Icing Conditions During Flight, of Chapter 4., SYSTEMS OPERATIONS – ANTI-ICE, of the NORMAL PROCEDURES section, of the Bombardier Canadair Challenger AFM, PSP No. 601-1A-1, Revision 82, dated April 16, 2020.

- Sub-sub section (2), Wing Anti-ice System, of sub-section I., Operation in Icing Conditions, of Chapter 3., OPERATING LIMITATIONS, of the LIMITATIONS section, of the Canadair Challenger AFM, PSP No. 601-1B, Revision 86, dated April 16, 2020.

- Sub-section E., Icing Conditions During Flight, of Chapter 4., SYSTEMS OPERATIONS – ANTI-ICE, of the NORMAL PROCEDURES section, of the Canadair Challenger AFM, PSP No. 601-1B, Revision 86, dated April 16, 2020.

- Sub-sub section (2), Wing Anti-ice System, of sub-section I., Operation in Icing Conditions, of Chapter 3., OPERATING LIMITATIONS, of the LIMITATIONS section, of the Bombardier Canadair Challenger AFM, PSP No. 601-1B-1, Revision 84, dated April 16, 2020.

- Sub-section E., Icing Conditions During Flight, of Chapter 4., SYSTEMS OPERATIONS – ANTI-ICE, of the NORMAL PROCEDURES section, of the

Bombardier Canadair Challenger AFM, PSP No. 601-1B-1, Revision 84, dated April 16, 2020.

- Sub-sub section (2), Wing Anti-ice System, of sub-section I., Operation in Icing Conditions, of Chapter 3., OPERATING LIMITATIONS, of the LIMITATIONS section, of the Canadair Challenger AFM, PSP No. 601A-1, Revision 106, dated April 16, 2020.

- Sub-section E., Icing Conditions During Flight, of Chapter 4., SYSTEMS OPERATIONS – ANTI-ICE, of the NORMAL PROCEDURES section, of the Canadair Challenger AFM, PSP No. 601A-1, Revision 106, dated April 16, 2020.

- Sub-sub section (2), Wing Anti-ice System, of sub-section I., Operation in Icing Conditions, of Chapter 3., OPERATING LIMITATIONS, of the LIMITATIONS section, of the Bombardier Canadair Challenger AFM, PSP No. 601A-1-1, Revision 95, dated April 16, 2020.

- Sub-section E., Icing Conditions During Flight, of Chapter 4., SYSTEMS OPERATIONS – ANTI-ICE, of the NORMAL PROCEDURES section, of the Bombardier Canadair Challenger AFM, PSP No. 601A-1-1, Revision 95, dated April 16, 2020.

- Sub-sub section B., Wing Anti-ice System, of sub-section 4., Operation in Icing Conditions, of Section 02-04, Operating Limitations, of Chapter 2 – LIMITATIONS, of the Bombardier Challenger 604 AFM, Publication No. PSP 604-1, Revision 116, dated December 18, 2019. (For obtaining the limitation and procedure for the Bombardier Challenger 604 AFM, Publication No. PSP 604-1, use Document Identification No. CH 604 AFM.)

- Sub-section M., Icing Conditions During Flight, of Section 04-14, Ice and Rain Protection, of Chapter 4 – NORMAL PROCEDURES, of the Bombardier Challenger 604 AFM, Publication No. PSP 604-1, Revision 116, dated December 18, 2019. (For

obtaining the limitation and procedure for the Bombardier Challenger 604 AFM, Publication No. PSP 604-1, use Document Identification No. CH 604 AFM.)

- Sub-sub section B., Wing Anti-ice System, of sub-section 4., Operation in Icing Conditions, of Section 02-04, Operating Limitations, of Chapter 2 – LIMITATIONS, of the Bombardier Challenger 605 AFM, Publication No. PSP 605-1, Revision 54, dated December 18, 2019. (For obtaining the limitation and procedure for the Bombardier Challenger 605 AFM, Publication No. PSP 605-1, use Document Identification No. CH 605 AFM.)

- Sub-section M., Icing Conditions During Flight, of Section 04-14, Ice and Rain Protection, of Chapter 4 – NORMAL PROCEDURES, of the Bombardier Challenger 605 AFM, Publication No. PSP 605-1, Revision 54, dated December 18, 2019. (For obtaining the limitation and procedure for the Bombardier Challenger 605 AFM, Publication No. PSP 605-1, use Document Identification No. CH 605 AFM.)

- Sub-sub section B., Wing Anti-ice System, of sub-section 4., Operation in Icing Conditions, of Section 02-04, Operating Limitations, of Chapter 2 – LIMITATIONS, of the Bombardier Challenger 650 AFM, Publication No. PSP 650-1, Revision 19, dated December 18, 2019. (For obtaining the limitation and procedure for the Bombardier Challenger 650 AFM, Publication No. PSP 650-1, use Document Identification No. CH 650 AFM.)

- Sub-section M., Icing Conditions During Flight, of Section 04-14, Ice and Rain Protection, of Chapter 4 – NORMAL PROCEDURES, of the Bombardier Challenger 650 AFM, Publication No. PSP 650-1, Revision 19, dated December 18, 2019. (For obtaining the limitation and procedure for the Bombardier Challenger 650 AFM, Publication No. PSP 650-1, use Document Identification No. CH 650 AFM.)

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Costs of Compliance

The FAA estimates that this AD affects 619 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

Estimated costs for required actions

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
1 work-hour X \$85 per hour = \$85	\$0	\$85	\$52,615

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the

national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

(1) Is not a “significant regulatory action” under Executive Order 12866,

(2) Will not affect intrastate aviation in Alaska, and

(3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2022-10-10 Bombardier, Inc.: Amendment 39-22048; Docket No. FAA-2021-0787;

Project Identifier MCAI-2021-00252-T.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Bombardier, Inc., airplanes, certificated in any category, as identified in paragraphs (c)(1) through (3) of this AD.

(1) Model CL-600-1A11 (600) airplanes having serial numbers (S/Ns) 1001 through 1085 inclusive.

(2) Model CL-600-2A12 (601) airplanes having S/Ns 3001 through 3066 inclusive.

(3) Model CL-600-2B16 (601-3A, 601-3R, and 604 Variants) airplanes having S/Ns 5001 through 5194 inclusive; 5301 through 5665 inclusive; 5701 through 5988 inclusive; and 6050 through 6153 inclusive.

(d) Subject

Air Transport Association (ATA) of America Code 30, Ice and Rain Protection.

(e) Unsafe Condition

This AD was prompted by a report of a wing stall during a landing flare. Photographs after landing showed that the airplane had mixed ice on the leading edges of the wings; therefore, it was determined that during descent the wing anti-ice (WAI) system had been OFF because the ice detector did not detect ice. The FAA is issuing this AD to address ice accumulation on the wing leading edges, which could result in a wing stall during landing and consequent reduced controllability of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Airplane Flight Manual (AFM) Revision

Within 60 days after the effective date of this AD: Revise the existing AFM to incorporate the specified sections of the Bombardier or Canadair Challenger AFM revision limitations and procedures for the WAI system specified in figure 1 to paragraph (g) of this AD.

Figure 1 to paragraph (g) – AFM Revisions

Bombardier Airplane Model/Serial Number	New Limitation/Procedure	AFM	AFM Revision and Issue Date
CL-600-1A11 (Variant 600), 1001 through 1085 inclusive for non-winglets	Sub-sub section (2), Wing Anti-ice System, of sub-section I., Operation in Icing Conditions, of Chapter 3., OPERATING LIMITATIONS, of the LIMITATIONS section; and sub-section C., Icing Conditions During Flight, of Chapter 3., SYSTEMS OPERATIONS – ANTI-ICE, and sub-section I., Before Landing, of Chapter 42., CONSOLIDATED CHECK LIST, of the NORMAL PROCEDURES section	Canadair Challenger AFM, Product Publication No. 600	Revision A114, dated April 16, 2020
CL-600-1A11 (Variant 600), 1001 through 1085 inclusive for winglets	Sub-sub section (2), Wing Anti-ice System, of sub-section I., Operation in Icing Conditions, of Chapter 4., OPERATING LIMITATIONS, of the LIMITATIONS section; sub-section C., Icing Conditions During Flight, of Chapter 4., SYSTEMS OPERATIONS – ANTI-ICE, and sub-section I., Before Landing, of Chapter 23., CONSOLIDATED CHECK LIST, of the NORMAL PROCEDURES section	Canadair Challenger AFM, Product Support Publication (PSP) No. 600-1	Revision 106, dated April 16, 2020
CL-600-2A12 (Variant 601), 3001 through 3066, and 43,100 lb. maximum take- off weight (MTOW)	Sub-sub section (2), Wing Anti-ice System, of sub-section I., Operation in Icing Conditions, of Chapter 3., OPERATING LIMITATIONS, of the LIMITATIONS section; and sub-section E., Icing Conditions During Flight, of Chapter 4., SYSTEMS OPERATIONS – ANTI-ICE, of the NORMAL PROCEDURES section	Canadair Challenger AFM, PSP No. 601-1A	Revision 123, dated April 16, 2020

Bombardier Airplane Model/Serial Number	New Limitation/Procedure	AFM	AFM Revision and Issue Date
CL-600-2A12 (Variant 601), 3001 through 3066, and 44,600 lb./45,100 lb. MTOW	Sub-sub section (2), Wing Anti-ice System, of sub- section I., Operation in Icing Conditions, of Chapter 3., OPERATING LIMITATIONS, of the LIMITATIONS section; and sub-section E., Icing Conditions During Flight, of Chapter 4., SYSTEMS OPERATIONS – ANTI-ICE, of the NORMAL PROCEDURES section	Bombardier Canadair Challenger AFM, PSP No. 601-1A-1	Revision 82, dated April 16, 2020
CL-600-2A12 (Variant 601), 3001 through 3066 with -3A engine, and 43,100 lb. MTOW	Sub-sub section (2), Wing Anti-ice System, of sub- section I., Operation in Icing Conditions, of Chapter 3., OPERATING LIMITATIONS, of the LIMITATIONS section; and sub-section E., Icing Conditions During Flight, of Chapter 4., SYSTEMS OPERATIONS – ANTI-ICE, of the NORMAL PROCEDURES section	Canadair Challenger AFM, PSP No. 601-1B	Revision 86, dated April 16, 2020
CL-600-2A12 (Variant 601), 3001 through 3066 with -3A engine, and 44,600 lb./45,100 lb. MTOW	Sub-sub section (2), Wing Anti-ice System, of sub- section I., Operation in Icing Conditions, of Chapter 3., OPERATING LIMITATIONS, of the LIMITATIONS section; and sub-section E., Icing Conditions During Flight, of Chapter 4., SYSTEMS OPERATIONS – ANTI-ICE, of the NORMAL PROCEDURES section	Bombardier Canadair Challenger AFM, PSP No. 601-1B-1	Revision 84, dated April 16, 2020
CL-600-2B16 (Variant 601-3A/3 R) 5001 through 5134 inclusive, and 43,100 lb. MTOW	Sub-sub section (2), Wing Anti-ice System, of sub- section I., Operation in Icing Conditions, of Chapter 3., OPERATING LIMITATIONS, of the LIMITATIONS section; and sub-section E., Icing	Canadair Challenger AFM, PSP No. 601A-1	Revision 106, dated April 16, 2020

Bombardier Airplane Model/Serial Number	New Limitation/Procedure	AFM	AFM Revision and Issue Date
	Conditions During Flight, of Chapter 4., SYSTEMS OPERATIONS – ANTI-ICE, of the NORMAL PROCEDURES section		
CL-600-2B16 (Variant 601-3A/3R) 5001 through 5194 inclusive, and 44,600 lb./45,100 lb. MTOW	Sub-sub section (2), Wing Anti-ice System, of sub-section I., Operation in Icing Conditions, of Chapter 3., OPERATING LIMITATIONS, of the LIMITATIONS section; and sub-section E., Icing Conditions During Flight, of Chapter 4., SYSTEMS OPERATIONS – ANTI-ICE, of the NORMAL PROCEDURES section	Bombardier Canadair Challenger AFM, PSP No. 601A-1-1	Revision 95, dated April 16, 2020
CL-600-2B16 (Variant 604) 5301 through 5665 inclusive	Sub-sub section B., Wing Anti-ice System, of sub-section 4., Operation in Icing Conditions, of Section 02-04, Operating Limitations, of Chapter 2 – LIMITATIONS; and sub-section M., Icing Conditions During Flight, of Section 04-14, Ice and Rain Protection, of Chapter 4 – NORMAL PROCEDURES	Bombardier Challenger 604 AFM, PSP No. 604-1 ¹	Revision 116, dated December 18, 2019
CL-600-2B16 (Variant 604) 5701 through 5988 inclusive	Sub-sub section B., Wing Anti-ice System, of sub-section 4., Operation in Icing Conditions, of Section 02-04, Operating Limitations, of Chapter 2 – LIMITATIONS; and sub-section M., Icing Conditions During Flight, of Section 04-14, Ice and Rain Protection, of Chapter 4 – NORMAL PROCEDURES	Bombardier Challenger 605 AFM, PSP No. 605-1 ²	Revision 54, dated December 18, 2019

Bombardier Airplane Model/Serial Number	New Limitation/Procedure	AFM	AFM Revision and Issue Date
CL-600-2B16 (Variant 604) 6050 through 6153 inclusive	Sub-sub section B., Wing Anti-ice System, of sub- section 4., Operation in Icing Conditions, of Section 02-04, Operating Limitations, of Chapter 2 – LIMITATIONS; and sub-section M., Icing Conditions During Flight, of Section 04-14, Ice and Rain Protection, of Chapter 4 – NORMAL PROCEDURES	Bombardier Challenger 650 AFM, PSP No. 650-1 ³	Revision 19, dated December 18, 2019
¹ For obtaining the limitation and procedure for the Bombardier Challenger 604 AFM, Publication No. PSP 604-1, use Document Identification No. CH 604 AFM. ² For obtaining the limitation and procedure for the Bombardier Challenger 605 AFM, Publication No. PSP 605-1, use Document Identification No. CH 605 AFM. ³ For obtaining the limitation and procedure for the Bombardier Challenger 650 AFM, Publication No. PSP 650-1, use Document Identification No. CH 650 AFM.			

(h) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method

approved by the Manager, New York ACO Branch, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(i) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) TCCA AD CF-2021-06, dated February 26, 2021, for related information. This MCAI may be found in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-07871.

(2) For more information about this AD, contact Chirayu Gupta, Aerospace Engineer, Mechanical Systems and Administrative Services Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; email 9-avs-nyaco-cos@faa.gov.

(j) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Sub-sub section (2), Wing Anti-ice System, of sub-section I., Operation in Icing Conditions, of Chapter 3., OPERATING LIMITATIONS, of the LIMITATIONS section, of the Canadair Challenger Airplane Flight Manual (AFM), Product Publication No. 600, Revision A114, dated April 16, 2020.

(ii) Sub-section C., Icing Conditions During Flight, of Chapter 3., SYSTEMS OPERATIONS – ANTI-ICE, of the NORMAL PROCEDURES section, of the Canadair Challenger AFM, Product Publication No. 600, Revision A114, dated April 16, 2020.

(iii) Sub-section I., Before Landing, of Chapter 42., CONSOLIDATED CHECK LIST, of the NORMAL PROCEDURES section, of the Canadair Challenger AFM, Product Publication No. 600, Revision A114, dated April 16, 2020.

(iv) Sub-sub section (2), Wing Anti-ice System, of sub-section I., Operation in Icing Conditions, of Chapter 4., OPERATING LIMITATIONS, of the LIMITATIONS section, of the Canadair Challenger AFM, Product Support Publication (PSP) No. 600-1, Revision 106, dated April 16, 2020.

(v) Sub-section C., Icing Conditions During Flight, of Chapter 4., SYSTEMS OPERATIONS – ANTI-ICE, of the NORMAL PROCEDURES section, of the Canadair Challenger AFM, PSP No. 600-1, Revision 106, dated April 16, 2020.

(vi) Sub-section I., Before Landing, of Chapter 23., CONSOLIDATED CHECK LIST, of the NORMAL PROCEDURES section, of the Canadair Challenger AFM, PSP No. 600-1, Revision 106, dated April 16, 2020.

(vii) Sub-sub section (2), Wing Anti-ice System, of sub-section I., Operation in Icing Conditions, of Chapter 3., OPERATING LIMITATIONS, of the LIMITATIONS section, of the Canadair Challenger AFM, PSP No. 601-1A, Revision 123, dated April 16, 2020.

(viii) Sub-section E., Icing Conditions During Flight, of Chapter 4., SYSTEMS OPERATIONS – ANTI-ICE, of the NORMAL PROCEDURES section, of the Canadair Challenger AFM, PSP No. 601-1A, Revision 123, dated April 16, 2020.

(ix) Sub-sub section (2), Wing Anti-ice System, of sub-section I., Operation in Icing Conditions, of Chapter 3., OPERATING LIMITATIONS, of the LIMITATIONS section, of the Bombardier Canadair Challenger AFM, PSP No. 601-1A-1, Revision 82, dated April 16, 2020.

Note 1 to paragraph (j)(2)(ix): The List of Effective Pages contains a page date error for page i of the LIMITATIONS Contents. The page date identified is in the List of Effective Pages is October 26, 2009; the date specified on page i is April 16, 2020.

(x) Sub-section E., Icing Conditions During Flight, of Chapter 4., SYSTEMS OPERATIONS – ANTI-ICE, of the NORMAL PROCEDURES section, of the Bombardier Canadair Challenger AFM, PSP No. 601-1A-1, Revision 82, dated April 16, 2020.

(xi) Sub-sub section (2), Wing Anti-ice System, of sub-section I., Operation in Icing Conditions, of Chapter 3., OPERATING LIMITATIONS, of the LIMITATIONS section, of the Canadair Challenger AFM, PSP No. 601-1B, Revision 86, dated April 16, 2020.

(xii) Sub-section E., Icing Conditions During Flight, of Chapter 4., SYSTEMS OPERATIONS – ANTI-ICE, of the NORMAL PROCEDURES section, of the Canadair Challenger AFM, PSP No. 601-1B, Revision 86, dated April 16, 2020.

(xiii) Sub-sub section (2), Wing Anti-ice System, of sub-section I., Operation in Icing Conditions, of Chapter 3., OPERATING LIMITATIONS, of the LIMITATIONS section, of the Bombardier Canadair Challenger AFM, PSP No. 601-1B-1, Revision 84, dated April 16, 2020.

(xiv) Sub-section E., Icing Conditions During Flight, of Chapter 4., SYSTEMS OPERATIONS – ANTI-ICE, of the NORMAL PROCEDURES section, of the Bombardier Canadair Challenger AFM, PSP No. 601-1B-1, Revision 84, dated April 16, 2020.

(xv) Sub-sub section (2), Wing Anti-ice System, of sub-section I., Operation in Icing Conditions, of Chapter 3., OPERATING LIMITATIONS, of the LIMITATIONS section, of the Canadair Challenger AFM, PSP No. 601A-1, Revision 106, dated April 16, 2020.

(xvi) Sub-section E., Icing Conditions During Flight, of Chapter 4., SYSTEMS OPERATIONS – ANTI-ICE, of the NORMAL PROCEDURES section, of the Canadair Challenger AFM, PSP No. 601A-1, Revision 106, dated April 16, 2020.

(xvii) Sub-sub section (2), Wing Anti-ice System, of sub-section I., Operation in Icing Conditions, of Chapter 3., OPERATING LIMITATIONS, of the LIMITATIONS section, of the Bombardier Canadair Challenger AFM, PSP No. 601A-1-1, Revision 95, dated April 16, 2020.

(xviii) Sub-section E., Icing Conditions During Flight, of Chapter 4., SYSTEMS OPERATIONS – ANTI-ICE, of the NORMAL PROCEDURES section, of the Bombardier Canadair Challenger AFM, PSP No. 601A-1-1, Revision 95, dated April 16, 2020.

(xix) Sub-sub section B., Wing Anti-ice System, of sub-section 4., Operation in Icing Conditions, of Section 02-04, Operating Limitations, of Chapter 2 – LIMITATIONS, of the Bombardier Challenger 604 AFM, Publication No. PSP 604-1, Revision 116, dated December 18, 2019.

Note 2 to paragraph (j)(2)(xix): For obtaining the limitation and procedure specified in paragraphs (j)(2)(xix) and (xx) of this AD for the Bombardier Challenger 604 AFM, Publication No. PSP 604-1, use Document Identification No. CH 604 AFM.

(xx) Sub-section M., Icing Conditions During Flight, of Section 04-14, Ice and Rain Protection, of Chapter 4 – NORMAL PROCEDURES, of the Bombardier Challenger 604 AFM, Publication No. PSP 604-1, Revision 116, dated December 18, 2019.

(xxi) Sub-sub section B., Wing Anti-ice System, of sub-section 4., Operation in Icing Conditions, of Section 02-04, Operating Limitations, of Chapter 2 – LIMITATIONS, of the Bombardier Challenger 605 AFM, Publication No. PSP 605-1, Revision 54, dated December 18, 2019.

Note 3 to paragraph (j)(2)(xxi): For obtaining the limitation and procedure specified in paragraphs (j)(2)(xxi) and (xxii) of this AD for the Bombardier Challenger 605 AFM, Publication No. PSP 605-1, use Document Identification No. CH 605 AFM.

(xxii) Sub-section M., Icing Conditions During Flight, of Section 04-14, Ice and Rain Protection, of Chapter 4 – NORMAL PROCEDURES, of the Bombardier Challenger 605 AFM, Publication No. PSP 605-1, Revision 54, dated December 18, 2019.

(xxiii) Sub-sub section B., Wing Anti-ice System, of sub-section 4., Operation in Icing Conditions, of Section 02-04, Operating Limitations, of Chapter 2 – LIMITATIONS, of the Bombardier Challenger 650 AFM, Publication No. PSP 650-1, Revision 19, dated December 18, 2019.

Note 4 to paragraph (j)(2)(xxiii): For obtaining the limitation and procedure specified in paragraphs (j)(2)(xxiii) and (xxiv) of this AD for the Bombardier Challenger 650 AFM, Publication No. PSP 650-1, use Document Identification No. CH 650 AFM.

(xxiv) Sub-section M., Icing Conditions During Flight, of Section 04-14, Ice and Rain Protection, of Chapter 4 – NORMAL PROCEDURES, of the Bombardier Challenger 650 AFM, Publication No. PSP 650-1, Revision 19, dated December 18, 2019.

(3) For service information identified in this AD, contact Bombardier Business Aircraft Customer Response Center, 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-2999; email ac.yul@aero.bombardier.com; Internet <https://www.bombardier.com>.

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fr.inspection@nara.gov, or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

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